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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/523,990	03/13/2000	Mou-Shiung Lin	MEG99-005	6138
28112	7590	04/26/2004	EXAMINER	
GEORGE O. SAILE & ASSOCIATES 28 DAVIS AVENUE POUGHKEEPSIE, NY 12603			WALSH, DANIEL J	
			ART UNIT	PAPER NUMBER
			2876	

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/523,990

Applicant(s)

LIN ET AL.

Examiner

Daniel I Walsh

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12-31-03 (amendment).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-23 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Receipt is acknowledged of the amendment received on 31 December 2003.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-4, 6-10, and 13-14, and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaki (JP406325913A) in view of Kudo (US 2002/0036235).

Re claim 1, Tamaki teaches forming internal marking indicia on a marking location upon an exterior surface of a chip resistor for identification of the chip (FIG. 1-FIG. 3); and forming a non-black, optically transmissive encapsulating material over at least the marking location on the one exterior surface of the chip which non-black, optically transmissive material cannot be

scraped off of the chip for prevention of replacement of the internal marking indicia by different markings, though protective layer 6.

Tamaki teaches a resistor and not specifically an IC chip. It is well known and conventional in the art to label IC chips and such modification to apply the teachings of Tamaki to IC chips would have been well within the skill in the art, to provide a crisp label that is readily viewable and protected. Re claim 2, Tamaki teaches the material is non-black optically transmissive to read the markings (paragraph [0017]). Re claims 3 and 19, as taught above, Tamaki teaches the resin layer 4 is an encapsulant as it encapsulates the label (FIG 1). Further, the examiner notes that encapsulation is well known and conventional in the art and is obvious to sealing/protecting purposes, and can include environmental protection/handling. The Examiner notes that the recitation that the material is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform, which the protective layer of Tamaki does. Accordingly, "adapted to protect..." does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138. Re claim 4, the Examiner notes it is well within the skill in the art to replace the identifying indicia with barcodes, as barcodes are well known and conventional to represent information in a machine-readable way, and that barcodes are well known for being used on IC devices, and produced by photolithography. Further, the examiner notes that by the teachings of Tamaki can also broadly read up claim 4, as ambient/visible light directed onto the chip resistor enables one to read the indicia based on its reflection (how the light reflects off the indicia) presented to an individual.

Kudo teaches a photolithography step for producing indicia (consistent with Tamaki), where the indicia are a barcode that is disposed on an IC chip/wafer (paragraph [0063], for

example). Re claim 4, as discussed above, Kudo teaches the use of a barcode, and accordingly, it is well known that barcodes are read by directing light onto the indicia and reading the reflections. Re claims 6 and 16, the epoxy resins are a well known and conventional commercially available resins used for covering chips (Lee US 6,288,335 and Ikeya et al. US 4,719,502), and prevents remarking. Re claims 7, 8, 17, 18, 20, and 21 it has been discussed above that barcodes/indicia are read with electromagnetic radiation reflecting off the indicia, as is conventional and well known. Re claims 7 and 17, the protective layer/cover/encapsulant was discussed above, and prevents remarking chip/wafer/silicon. Re claims 9 and 10, the limitations have been discussed above re claim 1. It is well known and conventional that ICs have an electrical contact site on a surface, and it has been taught above that Tamaki covers the exterior of the chip and prevents replacement of the internal marking indicia and prevents remarking the internal indicia on the exterior through the protective layer, as discussed above. Re claim 10, it has been discussed above that it is well known to read indicia using electromagnetic radiation impinging on the indicia. Re claims 13-14, the limitations have been discussed above re claim 1 and 2.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Tamaki with those of Kudo.

One would have been motivated to do this in order to provide identification of circuit elements, as is well known and conventional in the art.

Re claims 8, 10, 18, 20, and 21, the Examiner notes that the prior art of Tamaki teaches covering an indicia on a resistor chip, and reading the indicia through the label. The Examiner asserts that modifying the indicia to include barcodes, produced as per the teachings of Kudo,

would have been obvious to an examiner of ordinary skill in the art as an alternative means to represent data, in a way that is common and well known (machine readable). The examiner believes that as the prior art of Tamaki teaches crisp and easily readable indicia (produced by conventional photolithography methods) read through the cover layer, it would produce expected results to replace the indicia with barcode indicia produced via photolithography and still viewable through the layer, as such a process produces visible and clear indicia. Such modification would be obvious to allow machine reading of data, or the storage of more information.

3. Claims 5, 15, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaki/Kudo, further in view of Ikeya et al. (US 4,719,502).

The teachings of Tamaki/Kudo have been discussed above.

Tamaki/Kudo is silent to colored material.

Ikeya et al. teaches the use of a colored resin for contrast (col 3, lines 65+). As taught above, the indicia is viewable through the layer, and the layer prevents replacing or remarking of the indicia. It is known that IC chips have surfaces and an electrical contact site. Re claim 23, it has been discussed above that electromagnetic radiation is used to read the indicia.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Tamaki/Kudo with those of Ikeya et al.

One would have been motivated to do this for contrast, to adjust readability.

Re claim 23, the Examiner notes that the prior art of Tamaki teaches covering an indicia on a resistor chip, and reading the indicia through the label. The Examiner asserts that modifying the indicia to include barcodes, produced as per the teachings of Kudo, would have

been obvious to an examiner of ordinary skill in the art as an alternative means to represent data, in a way that is common and well known (machine readable). The examiner believes that as the prior art of Tamaki teaches crisp and easily readable indicia (produced by conventional photolithography methods) read through the cover layer, it would produce expected results to replace the indicia with barcode indicia produced via photolithography and still viewable through the layer, as such a process produces visible and clear indicia. Such modification would be obvious to allow machine reading of data, or the storage of more information.

4. Claims 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaki/Kudo/Ikeya et al., further in view of Jeng et al. (cited in previous action).

The teachings of Tamaki/Kudo/Ikeya et al. have been discussed above. It has been discussed above that the layer prevents replacement of the markings, and cannot be scraped off (doing so would compromise integrity).

Tamaki/Kudo/Ikeya teach the use of a colored resin layer but are silent to the colored resin together with the indicia representing identification of the chip.

Jeng et al. teaches using color as an identifier for a chip (as cited in prior action).

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Tamaki/Kudo/Ikeya et al. with those of Jeng.

One would have been motivated to do this in order to also use the color of the resin layer as a further identifier, since color is used as an identifier by Jeng, and therefore one would be motivated to combine the teachings to provide further identification means.

Response to Arguments

5. Applicant's arguments with respect to claims 1-10, 12-23, and 25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Duncan et al. (US 4,585,931).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Walsh whose telephone number is (571) 272-2409. The examiner can normally be reached between the hours of 7:30am to 4:00pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone numbers for this Group is (703) 308-7722, (703) 308-7724, or (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [daniel.walsh@uspto.gov].

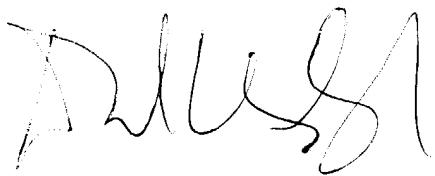
All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set for the in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Application/Control Number: 09/523,990
Art Unit: 2876

Page 8
D. Walsh

DW
4/13/04

A handwritten signature in dark ink, appearing to read 'D Walsh', written in a cursive style.

Jared J. Fureman
JARED J. FUREMAN
PRIMARY EXAMINER